

19.15
456

Natural History

FIELD MUSEUM STORIES

Why Leaves Change Color



Series XXXIII, No. 1

October 7, 1939

Looseleaf No. 11

112269

WHY LEAVES CHANGE COLOR



FALLING LEAVES

Each autumn the leaves of many of our trees and shrubs change from green to bright colors, before they turn brown and drop to the ground. Beautiful effects are created in our parks, our forest preserves, and along the tree-lined roads as the leaves—red, purple, yellow, green, and brown—blend into a harmony of color. On cloudy days the mass of yellow lightens the countryside and gives the appearance of reflected sunshine.

The different shades of color are often so intense or so delicate that even the most casual observer will notice them and wonder why the change occurred. Probably no one knows exactly how this change in color happens. Many believe that the frost causes it, others do not. At any rate the change in coloring usually comes in the autumn about the time of the first frost. It is then that the deciduous trees (those which lose their leaves) begin to prepare for winter. The leaves have finished their summer's work of manufacturing food for the tree and as their activity slows down, the green tint begins to disappear. With the fading of the green, the yellow and orange appear. Probably these hues have been present in the leaves all the time but have been covered by the green color. As the leaves finish their work, the circulation of water and food in the entire tree slows up. Often some of the food, which naturally would be carried into the trunk for storage, accumulates in the leaves, where it is trapped. At about this time the cool weather comes along, and the complicated chemical reactions which start within the leaves produce the red or purplish tints.

Certain kinds of trees become more brilliant than others and even among trees of the same kind there is a variation in color. For instance, the sugar maples turn yellow, red, and orange. The scarlet, pin, and red oaks become red, and the white oak turns almost purple. Usually the red maples, dogwoods, sweet gums, wild plums, and sumacs turn various shades of red or scarlet, while the silver maples, locust trees, poplars, tulip trees, birches, and witch-hazels become different shades of yellow.

Other trees, like the bur oak and the hickories, sycamores, horse chestnuts, and wafer ashes, change only to dull brown.

Only deciduous trees change into autumn colors—the evergreens do not. Some regions such as Florida, sections of mountainous evergreen forests, and the tropics do not have the climatic conditions and the varieties of trees that produce bright autumn coloring. In North America, the regions which appear exceedingly beautiful in the fall are the eastern states stretching from Canada southward and from the eastern coast to the great plains, and certain regions like the Missouri Ozarks, where deciduous trees cover the mountains.

Many leaves show various tints in the spring when they first open. The green color appears only after the leaf is exposed to the light. When the buds first open the small leaves are pale yellow, pink, or almost colorless, but as they continue to unfold and as the sun shines more directly on them the green color begins to appear and soon covers up any other hue which might be present. Young oak leaves are red in the spring for a short time, and shagbark hickory leaves are wrapped in delicate yellow and pink bud-scales. As the bud unfolds, the scales drop back and the yellow-green leaves uncurl in the light and soon become deep green in color.

These leaves usually remain green all through the summer while they are manufacturing food for the trees. However, if the tree is injured or does not receive enough water and food, the leaves will fade, wither, and drop to the ground, regardless of the time of year. Leaves change color as they die. However, most leaves die only after their work has been finished and that is in the fall of the year in temperate climates. And so the autumn, with its warm days and cool nights, is the time to see the leaves attired in brilliant color.

MIRIAM WOOD
Raymond Foundation

NOTE: The fall colors of leaves may be seen in Hall 20 in the Crane Group and the Wild Turkey Group, in Hall 16 in the Mule Deer Group and the White Tailed Virginia Deer Group.

This page is for your own notes and illustrations

FIELD MUSEUM STORIES

Poisonous Snakes of the Western World



Series XXXIII, No. 2

October 14, 1939

Looseleaf No. 12

POISONOUS SNAKES OF THE WESTERN WORLD



COILED RATTLESNAKE

The only poisonous snakes found in North America are the rattlesnakes, water moccasins, copperheads, and coral snakes, and these are not as numerous as we might believe.

Few people are killed by the bites of poisonous snakes, because the snakes usually do everything in their power to avoid contact with men. How-

ever, everyone should be able to recognize all the poisonous kinds, because such knowledge not only protects human beings from harm but also protects a great many harmless snakes. All snakes are meat eaters, and since their food consists chiefly of rats, mice, and insects, they are very useful to farmers.

A small rattlesnake, the massasauga, is the only poisonous snake found in the Chicago region. Rattlesnakes may be identified easily by the rattle on the end of the tail. This rattle consists of smooth rings fastened loosely together. When the tail is shaken the rattle produces a peculiar buzzing sound. Rattlesnakes usually live in dry woods but often they go into marshy places looking for frogs, mice, or other food. In the western part of the United States rattlesnakes live on the open prairies and the deserts.

The copperhead is also a snake of the dry woods. It is more difficult to recognize than the rattler but it may be identified by its light-brown body marked with dark-brown Y-shaped blotches. Copperheads also feed on mice but much of their food consists of birds. They usually hunt at night and sleep during the day, so they are not seen as often as the rattlesnakes. They are not inhabitants of the Chicago region but they may be found in an area about one hundred miles south of Chicago.

The water moccasin lives along the banks of streams or on the edges of swamps in the southern part of the United States. Its heavy, thick body is dark brown in color with faint black marks on the sides. Water moccasins usually are found stretched on a log overhanging the water, where they wait for a frog or fish to come within striking distance. After striking, the moccasin hangs onto its food, because fish and frogs are not as quickly

killed by snake poison as birds or mice. This snake will try to escape if a man approaches but if cornered it will fight by coiling and striking.

Rattlesnakes, moccasins, and copperheads belong to a group of snakes known as pit vipers, and all have two large front teeth or fangs which may be moved. Pressure of the jaw muscles sends poison from the poison glands down through the fangs, which are hollow. The poison is very useful to the snake as an aid in capturing prey because a small animal which has been bitten usually dies before it can get away.

The coral snakes are beautifully colored, with red, yellow, and black rings. Their short poison fangs cannot be moved. Coral snakes never strike, but if touched or stepped on they turn and deliberately bite. The bite is very dangerous because the poison attacks the nerve centers and may kill very quickly. Coral snakes are widely distributed through the southern part of the United States, Mexico, and Central and South America.

What has been said so far, except for the coral snakes, applies only to the North American poisonous snakes. In the tropics of Central and South America there are many kinds of coral snakes and pit vipers. Among the tropical pit vipers the most widely known are the bushmaster and the fer-de-lance.

The bushmaster is bold and very dangerous. It will glide toward a man until its head is within striking distance. Also it is the largest New World poisonous snake, often reaching a length of eight or ten feet. It has very long fangs and a large amount of poison. This is the only American pit viper that lays eggs. The young of the rest are born alive.

The fer-de-lance is quite abundant and widely distributed. It does not grow to be as large as the bushmaster but has a powerful poison.

A bite from any poisonous snake is unmistakable within a few minutes after the poison has been injected. Any such bite should be treated as quickly as possible by a doctor and the victim should be sent to a hospital where further treatment may be given.

LOREN P. WOODS
Raymond Foundation

NOTE: Poisonous snakes may be seen on the north side of Hall 18.

This page is for your own notes and illustrations

FIELD MUSEUM STORIES

The Quetzal—Sacred Bird of the Aztecs



Series XXXIII, No. 3

October 21, 1939

Looseleaf No. 13

THE QUETZAL—SACRED BIRD OF THE AZTECS



QUETZAL BIRD

The quetzal of Guatemala has a most interesting history. The Maya Indians sang of its beauty, and because the quetzal was the emblem of their "god of the air" its fame has been preserved in legend. Today the bird is loved and honored as the national emblem of Guatemala. Recently that country issued a postage stamp bearing the picture of its famous inhabitant. In spite of its long history, few persons beside the natives of the highlands of Guatemala had seen a live quetzal until recently.

When the Spaniards invaded Mexico in the sixteenth century, they were amazed at the civilized customs and spacious cities which they found there. One of the most beautiful spots in the country was the royal garden of the king, Montezuma. There were strange trees with fragrant blossoms, and flying about among the branches were many bright-colored birds. Here were kept the quetzals that had been captured alive by Indians from the far southern corners of Montezuma's realm. The tail pendants were removed, and then the birds were released in the king's garden, while the feathers were used to make robes and cloaks for the king.

One of the prominent Aztec heroes was Quetzalcoatl. According to the legends, he taught arts and crafts, government, and religion to the Indians. He adopted quetzal plumes for his magnificent crowns, and pictures represent him as wearing a curious head-dress from which stream the long, green tail pendants of the quetzal. Later Quetzalcoatl became a god and the golden-green quetzal became his sacred bird. Quetzal plumes were adopted as the emblem for all rulers, whether gods, kings, or high priests. Hence, among the Mexicans quetzal feathers became more valuable than gold.

With the coming of the Spaniards the Aztec priests and rulers were killed and the temples which had been erected to the old gods, such as Quetzalcoatl, were destroyed. The Spaniards wanted only gold, so the hunters no longer searched for the

quetzal and the lovely gardens of Montezuma were abandoned. Only the ancient songs and legends, remembered by the older Indians, remained to tell the story of the hero Quetzalcoatl and his sacred bird.

This sacred bird of the Aztecs is not much larger than a pigeon. Its coloring is brilliant. The upper feathers are iridescent green, sometimes changing to blue. The head feathers are elongated to form a crest, the flight feathers in the wings are long and glossy black, while the higher wing feathers (coverts) are golden green. The tail coverts are green; sometimes the middle pair are over one yard in length. The under parts of the bird are vermilion. The female does not have the long tail feathers. Although less resplendent than her mate, she, too, is beautiful because of her green, brown, and vermilion coloring.

The quetzal is found only in the cloud forests of Middle America, from southern Mexico to northern Panama. These forests cover the mountains on the Pacific side of Guatemala. Sunlight seldom penetrates the leaves above the forest floor, and misty clouds drifting up the mountain side keep everything in perpetual dampness. Tree ferns, air plants, dwarf palms, and orchids grow in abundance, while huge vines and aerial roots overhang the trails. Few naturalists have visited the region and comparatively few museums exhibit mounted specimens of the quetzal.

Quetzals nest from June to October in a hollow tree about forty feet above ground. Very little is known about their nesting habits, but it is believed that they lay two greenish-blue eggs which are probably incubated by both parents. It becomes quite cool in the mountains at night and since the young are hatched without feathers, the mother bird continues to enter the nest as long as the young need to be kept warm. At the age of six weeks, the fledglings leave the nest.

Quetzals belong in the trogon group of tropical birds. Before the ice age trogons lived as far north as France. With the coming of the glaciers over the northern hemisphere, these birds moved south in search of food and a warmer climate. Trogons have never resumed their former range in the temperate regions, although the great ice sheet has retreated to the arctic zone.

MARIE B. PABST
Raymond Foundation

NOTE: In Hall 21 there is a Costa Rican quetzal, and in Hall 20 Guatemalan quetzals are shown in their cloud-forest home.

SAND-PAINTINGS OF THE NAVAHO INDIANS

by

ELIZABETH MCM. HAMBLETON

Raymond Foundation



Museum Stories, Number 14

SAND-PAINTINGS OF THE NAVAHO INDIANS



NAVAHO SAND-PAINTING

Making pictures with colored sands is a very old custom among the Indians of northern New Mexico and Arizona. The Navahos believe that the sacred designs used in the pictures were given to their ancestors by the gods, who painted the patterns on the clouds in the sky. These sand-paintings are used as part of a ceremony for

curing sick people, in praying for rain, or for the general welfare of the tribe.

When a Navaho Indian has some illness that lasts for a long time, he calls in a medicine man, or chanter, to perform a ritual chant to cure him. His neighbors, some of whom may live many miles away, come from all over the countryside to watch the performance. Here they can meet their friends whom they may not have seen for a long time. There is always plenty of time for singing, dancing, and horse-racing, which are the favorite amusements of these Indians. The sick person has to pay for all the food and entertainment of these people, as well as the fee of the chanter; so only the rich can afford a chant.

There are many chants, one to cure blindness, one for deafness, and many others. Each chant is composed of a complicated ritual; therefore it is almost impossible for any chanter to know more than one ceremony thoroughly.

On each of the first four days of the chant the patient is given a sweat-bath, accompanied by prayers, singing, and dancing. On the fifth day prayer sticks, decorated with feathers, are set up in front of the medicine-lodge, where the ceremony takes place. These sticks notify the gods that a sand-painting is being made. On the floor of the lodge clean sand is spread three inches thick over a space fifteen or twenty feet in diameter.

The chanter's assistants grind up the dry colors: yellow, red, and white from sandstone, black from charcoal. Gray is made by mixing black and white, but the Navahos call it blue. White is the color of the eastern sky just before dawn; so white is always used on the east side of the picture. Blue is the color of the south, for when the winds come from the south the skies

are usually bright and blue. Just the opposite, the black storm clouds come from the north; so black is the northern color. Yellow represents the color of the glowing sunset sky in the west.

The artist takes a handful of the dry paint and makes a line by letting a small stream of it trickle between his thumb and first finger. The design must be painted exactly as it has always been done, for the Navahos think that if the slightest change is made in any detail of the picture the gods will be angry and will not answer their prayers. Sometimes the artists become involved in heated arguments over whether there should be a tiny red dot on the left or the right cheek of such-and-such a god, or some other such obscure detail.

The picture must always be completed by sunset. Often the artists have to start work long before sunrise so that they will be through by nightfall. When the painting has been finished the patient is seated in the middle of it. The chanter sings his prayers for recovery, and masked dancers prance about the medicine-lodge. Other people who cannot afford chants for themselves take up sand from the painting and touch it to the spot where they have an ache or a pain, hoping that in this way they also may be cured. When the ceremony is over the assistants rub out the designs with a long stick. Then they load the sand onto a blanket, carry it outside, and throw it away. New paintings are made during the next three days of the chant, and on the last day there is more singing and dancing in which the patient is supposed to join to show that he is cured.

The chants are performed in the same way whether the tribe prays for rain or for the blessings of the gods. The Navahos say that when all the chants die out and when the sand-paintings are changed from the original form in which the gods gave them, the world will come to an end.

NOTE: The picture in the corner represents a Navaho sand-painting called the "Sky Man." It shows the Sky Man dressed in black with a moon and stars on his dress. The Earth Mother is next to him and on her dress are the four sacred plants: corn, tobacco, beans, and squash. The picture is bounded by lines representing the rainbow—the symbol of moisture.

This page is for your own notes and illustrations

FIELD MUSEUM STORIES

Chinese Writing

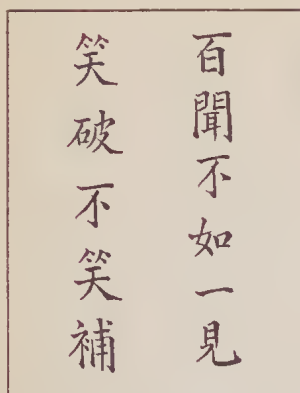


Series XXXIII, No. 5

November 4, 1939

Looseleaf No. 15

CHINESE WRITING



CHINESE PROVERBS

At the left are two proverbs as they appear in Chinese books. Below are the same complicated signs with their English meanings:

笑, laugh	百, hundred
破, tear	聞, hear
不, not	不, not
笑, laugh	如, like
補, patch	一, one
	見, see

The Chinese use similar signs for all their printed and written words. They begin at the upper right and read downwards. If we do the same and fill in the gaps, as in a telegram, the first proverb says: "A hundred hearings are not like one seeing." The second one reads: "Laugh at a tear, but do not laugh at a patch."

Like all peoples of the Orient, the Chinese say much in few words. We have 26 letters in the alphabet to use in building our words, while the Chinese have hundreds of parts which may be put together to form words. Hence they do not study spelling as we do, nor can one listen to a word being spoken and then spell it as in English.

Any one of their signs, or "characters," as we call them, may represent an object of which one is speaking, may define the action of the sentence or phrase, or may even describe an object. All depends upon its place in the sentence. Such words as "an," "the," "to," "him," and similar words, which we consider so important, are seldom written out in a sentence.

Chinese writing is very, very old. As early as 1400 B.C. the Chinese had characters which were used in words inscribed on bones, tortoise shells, and bronzes. The bones seem to have been the property of the ancient oracles, as the writings have to do with those connected with the oracles and their sayings.

Many of the earliest forms of characters are pictures of the objects written about. Gradually the picture form gave way to the stroke type of today. The making of these characters has become one of the arts of China. A beautiful bit of writing is as much admired as a lovely painting. Many of the great

pictures and some of their porcelains show delicately inscribed stanzas of poetry or personal comments of the artists.

Wherever one travels in China, he sees monuments, bridges, arches, and slabs covered with Chinese writing. Many a famous man studied history from just such memorials, for they tell of wars and great events in the history of the country, and they sing the praises of families of whom the Chinese are proud. Some of the inscriptions are in temples and public buildings now, and those that have become dim from age and hard to read may be studied from ink rubbings.

Before the invention of paper, writing was done with brush and ink on wood, bamboo, and silk. The oldest books are made of pieces of wood tied together and must have been most difficult to manage. With the making of paper, a medium was obtained which held the characters and made writing more useful to the people. Both ink and paper are Chinese inventions.

Upon the writing table of a Chinese student will be found many objects. His brushes will vary in size for the making of the light and heavy strokes. Either bamboo or ivory tubes hold in place the sheep, wolf, hare, or deer hairs used. Different kinds of hairs produce different kinds of lines. A very necessary part of his equipment will be the ink-stone on which he places a few drops of water; then he rubs the ink cake into it. The ink may be in a cake somewhat like a domino, or it may have a fancy form and be highly decorated. The ink is to the writer what paint is to the artist. Both use brushes for applying it.

Thus through the centuries, the Chinese have surrounded themselves with the necessary tools for the writing which we all admire so much.

MARGARET M. CORNELL
Raymond Foundation

NOTE: In Hall 24, at the south end, may be seen ancient inscribed bones and tortoise shells. At the north end is an inscribed pillar and ink rubbings of coffin inscriptions. In Hall 32 is a case full of writing materials, and, nearby, another which has a Chinese boy's copybook, writing equipment, exercises and school books, all of which recently came from a Chinese school.

This page is for your own notes and illustrations

FIELD MUSEUM STORIES

The Man in the Moon

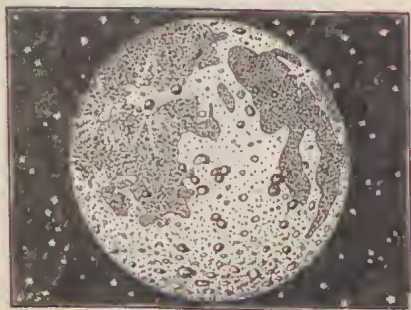


Series XXXIII, No. 6

November 11, 1939

Looseleaf No. 16

THE-MAN-IN-THE-MOON



THE MOON

The Man-in-the-Moon lives in a strange place indeed. He has no companions of any kind and must always gaze out upon a rough, barren country. Yet, in spite of these peculiarities, he is very popular and much discussed in song and story.

The peoples of ancient times thought of the moon as something mysterious and sacred

because they could not explain the changes that took place each month in its appearance. To many it was a comrade god of the sun and offerings were made to it. The Iranians called it "The Eye of God" and when a sheep or goat was offered as a sacrifice, the right eye of the animal was the "share of the moon."

Today, the influence of the moon is still important in many lands. The Tyrolese begin no work in house, barn, field, or woods until the moon has been studied, while in parts of England and Scotland courtesies are made to a new moon and children are told that it is wicked to point a finger at it. Farmers of our own land often say that an especially fine crop of potatoes is good because the seed potatoes were planted in the dark of the moon.

The planet of which the Man is a part is closer to the earth than any other planet. Just as the sun is closer to the earth at some times than at others, so the moon varies in its distance from our planet. At times, the moon is 221,436 miles away, and at other times it is 253,263 miles distant.

It takes the moon 27 days, 7 hours, 43 minutes and $11\frac{1}{2}$ seconds to make a complete trip around our earth. As it takes the same length of time to make one turn on its axis, only one side of the moon is seen from the earth. No one knows the appearance of the other side.

The surface of the moon is made up of plains and mountains, volcanoes, cup-shaped depressions, and rills or deep cuts. The mountains are very high, with sharp points. They do not have the rains and winds and frosts of the earth to break off parts and carry them to the lowlands as do our mountains. There are no clouds, no water, and no atmosphere on the moon. Can

you imagine a place that has no lovely, soft, spring rains and gentle breezes to bring the spring flowers, no beautiful colors when the sun sets behind a mass of clouds? When the sun's rays are directly on the moon, everything receiving those rays is boiling hot, but when the sun is busy elsewhere, down tumbles the temperature, far below the freezing point.

When man first began to study the moon, it was thought that the darker areas were the waters of great seas, so they were named for seas known at that time. For, said some, the moon is just a big mirror reflecting what we have on the earth. Then came the building of observatories in which to place powerful telescopes with their massive mirrors, and spectroscopes with which to study the light that came to the earth from the moon. Soon it was proven that the moon was only a dead planet. And the Man-in-the-Moon, the Old-Woman-with-the-Book, and the Jumping-Hare of the Chinese were just plains with surrounding mountain rims and depressions.

Of late years, much scientific information about the moon has been gained. Science has proved that the moon has an effect upon the tides of the ocean. We know now that its weight or mass is only $\frac{1}{81}$ of that of the earth; therefore, the pull of gravity on its surface is very much less than that on the earth, and your weight would be much less, if you were on the moon, than it is on the earth. On the earth the fall of a body is 16 feet per second; on the moon only 2.6 feet in the same length of time. Could one visit the moon, carrying an air bag so that he could breathe, his strides would equal those of a giant.

Thus we see that the Man-in-the-Moon lives on a queer planet, on the side that is always turned towards us, and that he really consists of a mass of surface features in a land that is waterless, airless, and lifeless.

MARGARET M. CORNELL
Raymond Foundation

NOTE: In Hall 35 is the largest model of the moon that has ever been made. It shows the features of the $\frac{1}{2}$ visible from various parts of the earth. The model is made to scale, so it is possible to get an idea of the height of the mountains and the depth of the depressions. In the upper right quarter is the dark mass which many call the Man.



FIELD MUSEUM STORIES

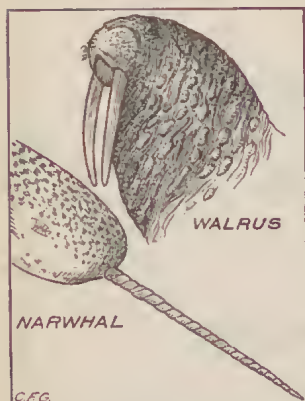
The Walrus and the Narwhal



Series XXXIII, No. 7
November 18, 1939

Looseleaf No. 17

THE WALRUS AND THE NARWHAL



ARCTIC IVORY-BEARERS

The walrus and the narwhal are just names to most of us, but to the Eskimos of the lands farthest north they mean a great deal. The mention of either animal reminds the Eskimos of exciting hunts followed by much feasting.

Hunting walrus is not particularly dangerous for men who use guns, but Eskimo hunters once used only a harpoon and lance. Sometimes the hunters would drift about on the sea in small kayaks until a walrus was seen resting in the water or on the ice. During such hunts the walrus often turned out to be more than a match for the hunter.

Hunting narwhals was not so dangerous because narwhals do not try to fight. It was exciting though, because they were usually found in schools and large numbers were killed at the same time.

Eskimos depend on the walrus and the narwhal to an extent which we can hardly understand. They use both animals not only for food, but also for oil, with which they heat and light their homes. In addition to this, both the walrus and the narwhal have long ivory tusks, and in lands where there is little wood these tusks as well as the bones are used as tools and weapons.

The walrus spends much of its time in the water but frequently it climbs upon either floating ice or shore ice to sleep and rest. It is a strange-looking animal, with short, heavy teeth in its jaws. Two of these teeth in the upper jaw grow out of the mouth and extend downward, forming the long tusks which the walrus uses to dig clams and other shellfish from the floor of the ocean. It takes these shellfish to the surface where it crushes the shells between its heavy jaw-teeth. Then the shellfish are dropped, shell and all, into the water. The shells sink but the shellfish's soft, light bodies float. Then the walrus daintily picks up the clean, meaty food and swallows it.

An old name for the walrus was "whale-horse," but this is not a very good way to describe it for its body is long and tapering, though bulky. Its thick skin has a few patches of reddish

hair, which is very scarce in old animals, and there are deep wrinkles across the shoulders.

Walruses have no ears showing on the outside of their heads, and their faces are covered with short, stiff, bristly whiskers. Instead of legs and feet they have broad, flat flippers which serve as oars.

For the most part, walruses are quiet animals, content to lie still on the ice or float lazily on the surface of the sea, but if they are attacked by killer-whales or polar bears they can defend themselves with their tusks. The members of a herd usually fight with a great deal of courage when united against a common enemy.

The narwhals are very well fitted for life in the ocean. They are shaped a great deal like large fish, but of course they are not even closely related to the fish but are whales. Whales are air-breathing mammals. They are warm-blooded, and the mothers feed the young on milk. Narwhals have no fins on their backs and their tails are horizontal instead of vertical as are fish tails. They breathe through openings on the tops of their heads. Each of these openings is covered with a flap of skin which keeps out the sea water while the whales are diving.

The narwhals' skins are light gray blotched with darker gray and are never covered with hair. Instead, they are protected from cold by a thick layer of fat or blubber which lies just under their thin skins.

Adult narwhals never have more than two teeth. Usually only one of these develops and this tooth grows straight out through the upper lip in the form of a cylindrical, tapering, pointed tusk which is spiraled. What use these spear-like tusks are to narwhals is not known, but the Eskimos use them for spear handles and as frameworks for their summer skin-tents.

Narwhals grow to be as much as fourteen feet long, an adult weighing about two thousand pounds. They feed upon squids, octopuses, and slow-swimming fish, swallowing them whole.

Most of us will probably never see walruses or narwhals alive because they never come this far south and they would be hard to keep alive in zoos. A special expedition is required if white men go to the north country to hunt walrus in their natural homes.

LOREN P. WOODS
Raymond Foundation

NOTE: The walrus and the narwhal as they appear in their arctic homes may be seen in Hall N.



FIELD MUSEUM STORIES

The Potlatch



Series XXXIII, No. 8

November 25, 1939

Looseleaf No. 18

POTLATCH



HOUSE WITH TOTEM POLE

The North West Coast Indians live along the Pacific Ocean, from southern Alaska to the northwestern corner of the state of Washington. Sometimes they are called the "cedar and salmon" Indians because they find so many uses for the cedar trees that are abundant in that region, and because salmon are a very important part of their food supply.

These Indians have a ceremony called the "potlatch," which is an Indian word for "give." The ceremony lives up to its name, for, to the casual observer, it appears to consist of a great feast at which the host gives away everything that he owns.

Each tribe is divided into two equal parts, usually called the Ravens and the Eagles. If a Raven man wants to give a potlatch, he goes on a round of the village inviting all the Eagles to come to the party. For years he and his wife have been preparing for the ceremony by collecting property in the form of furs and gray Hudson Bay Company blankets, which are used as money by these Indians. The wife has gone around the village, too, lending furs and blankets to all her friends and relatives. She has done this not to be generous but to increase the family wealth, for she knew that when she wished to collect, all these people would have to pay her back with 100 per cent interest.

If the guests have been invited for a house-building potlatch, each one is assigned a task, some cutting down trees, others hewing planks or carving designs. When finally all the work is completed the ceremony begins. The guests assemble at the newly built dwelling. After much feasting, singing, and dancing, the host and his wife withdraw behind a curtain at the end of the room. A hush falls on the company and finally the curtain is drawn, revealing the host and hostess dressed in all their finery standing in front of a huge pile of blankets, furs, and food. Just as if they were at a play, the guests applaud the sight of the property and its owners. The hostess presents a number of blankets to each person, in payment for the work he has done in helping to build the house. All are paid, from the chief down to the smallest child who has carried water or gathered chips of wood.

In a speech the hostess proclaims that the potlatch is being given in honor of her children, and confers upon each of them a ceremonial name. Giving a potlatch for a child raises him a step socially. A North West Coast Indian mother and father save and scrimp to give their children a potlatch just as our mothers and fathers save money to send us to college. A totem-pole-raising potlatch gives a child some prestige, but not as much as does a house-building one, since the latter involves much greater expense.

A vengeance potlatch is given to maintain rank, not to acquire it. This kind of potlatch takes place when one person has insulted another. The victim of the insult gets his revenge by inviting the wrong-doer and his relatives to the ceremony. There, in front of them all, the insulted one hacks to pieces a canoe or burns up a barrel of fish oil. If the other man cannot sacrifice a similar or greater amount of property, he is degraded socially and revenge is attained.

If a person of high social status should have a mishap, such as stumbling over a root or spilling a dish of food on his clothes, he gives a "face-saving" potlatch. All the people who have witnessed the mishap are invited and presented with gifts as "hush money," so that they will never mention the incident again.

When a chief or any other person of high rank dies, his property and position go to his oldest brother or nephew. To make good his claim, the heir gives a funeral potlatch, distributing the property he has inherited, and maybe some of his own as well.

This all sounds as if some people did all the giving and others all the receiving, but, actually, a person who receives a gift is obligated to give in return one of equal or greater value.

At a potlatch the hostess hands out the gifts according to the rank of the guests. And so, it is not so much the gift that is given but the order in which it is given which shows how much prestige a man has. And it is not the wealth a man accumulates but that which he gives away which gains him this prestige.

ELIZABETH MCM. HAMBLETON
Raymond Foundation

NOTE: In Hall 10 there are many articles made and used by the North West Coast Indians. In Cases 1, 7, 12, and 33 are objects used in the potlatch ceremony.

